

19.40.08.00.s3b1308 | Release notes

bintec elmeg GmbH

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Build 196

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1 Release Description

Release notes for be.IP swift software release 19.40.08.00.s3b1308

The file "19.40.08.00.s3b1308.img" contains the current firmware for be.IP swift (vendor: bintec elmeg GmbH).

NOTE: This firmware file can only be used with a be.IP swift from bintec elmeg GmbH! Please pay attention to the guideline for firmware updates [at the end of this text](#).

1.1 Versions and Filenames

Product:	be.IP swift
Version:	19.40.08.00.s3b1308
Build:	196
Language:	Deutsch/English
Release date:	24 Aug 2023
DSL firmware:	12.9.1.2.0.05 (VRX618/VRX619 ADSL/VDSL G.VECTOR G.FAST)
VoIP firmware:	1.2.11.10.0
Kernel version:	4.9.241-zyxel28
Bootloader version:	2016.07-zyxel10-gef98d2f
Product Number(s):	GX5502-D0-DE03V1F
File Name:	19.40.08.00.s3b1308.img

1.2 Features

The release note describes news and changes in a release for the device for which the release is available. Please refer to the the data sheet for your device to find out which functions it supported.

2 Changelog

2.1 19.40.08.00.s3b1308 (14 Jul 2023)

Security related changes:

- BS-7393, PREM-2089: Updated version of libmicrohttpd to 0.9.76.
 - | Note: The previous used libmicrohttpd version (v0.9.51) allowed remote DoS (Denial of Service) due to improper parsing of a multipart/form-data boundary in the post processor.
- BS-7414: Fixed a potential stack overflow issue in tool c-ares.
 - | Note: Fixed vulnerability: CVE-2022-4904
- BS-7423: Fixed DoS and buffer underflow issues in tool c-ares.
 - | Note: Fixed vulnerabilities: CVE-2023-31130 and CVE-2023-32067
- BS-7424: Updated OpenSSL version to 1.1.1u
 - | Note: Fixed multiple vulnerabilities: CVE-2023-0464, CVE-2023-0465, CVE-2023-0466 and CVE-2023-2650

New features:

- BS-7400: Added a GUI configuration page for setting DHCP options.
- PREM-1192: Added an option to setup the WiFi clients using a QR code shown in the GUI.
- PREM-1582: The Internet Connection configuration page was completely revised and functionally enhanced.
- PREM-2002, PREM-2058: Device management by Cloud Network Manager (CNM) is supported now.
 - | Note: This feature is deactivated by default, but it can be activated via the GUI.
- PREM-2084: Calls from/to ISDN and analogue subscribers are now also recorded in the SysLog.
- PREM-2108, PREM-2120: Added support of voice mail query from external via feature code procedure.

Note: The permission to query the voice mail box from external can be configured individually for each voice mail box.

System:

- PREM-1967: Added C++ boost library version 1.80.0, which is used by the Cloud Net Manager (CNM) client.
- PREM-2077: Fixed an issue where the second try try to update the firmware was not possible if the image was missing on the server.
- PREM-2112: System snapshot (SIA file) enhancements to facilitate the troubleshooting process regarding telephony problems.

Note: Added a VoIP call history list, call status informations and states of the switching network.

Telephony:

- PREM-1850: Added new console command 'ó k' for the MPS debug shell, showing KSN module chains during calls and established connections.
- PREM-1871: Resolved a problem where keyboard labeling of the elmeg system telephones could not be printed out.
- PREM-2057: Fixed some potential memory leaks during active calls.
- PREM-2079: Fixed an issue where music on hold was interrupted or restarted for a team call with linear call distribution and automatic call acceptance with MoH.
- PREM-2083: When a call is transferred blindly, the caller's new phone number is now also signaled to the destination subscriber while the call is ringing.
- PREM-2099: Fixed an issue where the DTMF inband detection no longer worked for a parallel call if the remote participant was on hold.
- PREM-2105: Fixed an issue where in rare case the PBX system has been crashed.

Note: The issue only occurs when a team call with linear/rotating call distribution is transferred to another team and the caller hangs up during the 100ms delay.

- PREM-2106: Fixed an issue where a double DTMF character was recognized in the voice channel if the * key (consultation) was pressed in a parallel call.
- PREM-2127: Fixed an issue where a missing or aborted reception of RTP packets caused message playback of a voice mail box to stop.
- PREM-2129: Endless attempts to provision the Gigaset VoIP phones caused by network configuration failures.

Note: The number of re-provisioning attempts is limited now to 1.

- PREM-2130: Fixed an issue where DTMF digits were detected twice after repeated team calls when dialing in via DISA.

GUI:

- BS-6370, BS-7380: Fixed an issue where the WANoE port status was not displayed correctly.
- BS-7068, PREM-1655: Fixed an issue where it was not possible to add a static IP with VLAN on Advanced Internet Access page.
- BS-7069, PREM-1658: Fixed an issue where the interface configuration was not correct on Advanced Internet Access page.
- BS-7070, PREM-1667: Fixed an issue where the interface name was renamed after a protocol entry was deleted on the Advanced Internet Access page.
- BS-7094, PREM-1762, BS-7345, PREM-2060: Fixed an issue where the ADSL support was incompletely implemented on the Advanced Internet Access page.
- BS-7371: Fixed an issue where the LAN port assignment status was displayed incorrectly.
- BS-7381: Updated the wording on the Firewall rules editing page.
- BS-7390: Fixed a problem where it was not possible to assign port forwarding for UDP port 10000 to a local host although the port was not occupied by another service.

- BS-7399: Improved display of system routing entries.
- BS-7411, BS-7412, PREM-2122: Added showing the WiFi channel which is actively in use on the WiFi overview page.
- BS-7434, PREM-667: Improved validation mechanism for port mapping related input fields.
- PREM-2086: The Internet assistant does not ask for ONT installation ID any more.
- PREM-2102: Fixed an issue where changes in the GUI could not be saved in user access mode.
- PREM-2107: Added showing the mac address of all WAN default gateway interfaces using not PPP on the Internet Connection overview page.

Configuration:

- BS-7418, PREM-2116: Fixed support of device name generation either by index or name.

xDSL:

- BS-7410: Integrated new MaxLinear xDSL/G.fast CPE DSL Subsystem release 12.9.1.2.0.05

Networking:

- BS-7197, BS-7419, BS-7420: Fixed an issue where the PCP mark of SIP/TCP and SIP/TLS packages was not set correctly.

Note: The SIP packets are not marked until QoS service is running after bootup. This can take about 60 seconds.

GPON:

- BS-7392: Added support of XGSPON ONU SFP (Zyxel PM7100-R0) module.

Known limitations:

- VPN hardware acceleration is not activated yet
- BS-7223: The bandwidth for the 5 GHz WiFi access point is limited to 20 MHz when a mode different than 802.11 anacax (default) is configured.
- BS-7458, CSO-1325: (DM-2961) The xDSL/G.fast CPE DSL subsystem may cause sync issues on ADSL2+ lines with ADTRAN DSLAMs.

2.2 19.40.07.00.s3b1253 (11 Apr 2023)

Security related changes:

- BS-6777: Fixed multiple, partly classified as critical vulnerabilities in tool c-ares.

Note: Fixed vulnerabilities: CVE-2021-3672, CVE-2016-5180, CVE-2017-1000381 and CVE-2020-8277.

Telephony:

- PREM-2055: Resolved the problem where the ISDN protocol layer 1 got stuck due to temporary faults on the ISDN cable connection.
- PREM-2070: Some syslog improvements relating to VoIP/SIP registrations have been implemented for better diagnosis.
- PREM-2074, PREM-2093: Fixed interruption of established telephone calls by the Telecom IMS platform after change of the SIP registrar.

Note: Problem is solved by keeping SIP registration for all VoIP accounts with running phone calls.

- PREM-2087: Solved the issue with a not audible ring back tone on incoming calls on caller side.

Note: This problem only occurred in media gateway operation.

GUI:

- BS-7350: Fixed a layout issue on the System overview page by adjusting the spaces in the info table.
- BS-7391: Fixed an issue on the license information page by removing the anchor link to the generic license information at the end of the page.

Networking:

- BS-7373: Fixed an issue where frame loss sporadically occurred on the WANoE interface.

- BS-7375: The read/write process in the network switch has been improved to prevent race condition.
- BS-7394: Fixed an issue where clients on the LAN side could not connect if the MTU size was set too high by the Digitalisierungsbox.

Note: This regression occurred with firmware 19.40.06.00.

Known limitations:

- VPN hardware acceleration is not activated yet
- CSO-1296, BS-7197: (DM-2817) Setting of priority bit for Voice Control is currently "0", but must be "5" (according to Tech Call from 4. August 2022).
- BS-6370: Link state of WANoE is not updated in GUI.
- BS-7069, PREM-1658: GUI: When switching to the Advanced Access page to configure xDSL information without saving this changes results in a broken VLAN configuration for this access setup.
- BS-7223: The bandwidth for the 5 GHz WiFi access point is limited to 20 MHz when a mode different than 802.11 anacax (default) is configured.

2.3 19.40.06.00.s3b1216 (16 Mar 2023)

Security related changes:

- BS-5749, BS-5752, BS-5786: Fixed vulnerabilities 'CVE-2020-13848' and 'CVE-2020-12695' for UPnP-IGD.
 - | Note: Updated libupnp to version 1.14.13
- BS-7246, BS-7333: Updated OpenSSL version to 1.1.1t
 - | Note: Fixed multiple vulnerabilities: CVE-2023-0286, CVE-2022-4304, CVE-2023-0215 and CVE-2022-4450.
- PREM-1884: Imported CA certificates are now available system wide.
- PREM-1885: Imported CA intermediate certificates were not marked as CA certificate.

New features:

- PREM-1734: Added new GUI page "Monitoring -> Internal Log" in tab "Home" to display and to filter internal syslog messages at runtime.
- PREM-1976: Added new SIP registration failed counter to improve the debugging of error cases.
- PREM-1977: Added watchdog mechanism to detect and resolve dead IPSec connections.
 - | Note: This function is an extension of the existing error detection mechanisms in IPSec.
- PREM-2017: The well-known "Alarm calls" feature has now also been activated in the be.IP swift.
 - | Note: Analog ports can now be used as message inputs.
- PREM-2024: Added configuration of the system phone admin password via the terminal assistant.
- BS-7211: Introduced rport-client for ssh based remote management.

Note: Purpose of this function is to improve remote support for friendly user testers. This function is not available via regular WEB GUI and disabled by default.

System:

- PREM-1981: Improved error response handling for SMTP to avoid long timeouts.
- BS-7331: Updated User Agent information used for POST request.

Note: User Agent format is: "Product class/Firmware version".

Telephony:

- PREM-1906: Resolved an issue regarding admission check for received SIP registration messages for SIP accounts with SIP binding location "any".
- PREM-1908: Resolved issue that the SSRC value was changed in RT(C)P streams across a hold scenario.

Note: Additionally the CNAME entry in the RTCP stream contains now the Host Name entered in the GUI.

- PREM-1930: Fixed the problem that no Ringback tone is audible in Swyx ONPA/ONPC SIP media gateway scenario for Unify system phone.
- PREM-1952: Resolved Media Gateway problem where a hold initiated from an external VoLTE phone caused the abort of the SRTP connection.

Note: This problem was detected in combination with SwyxWare ONPA/ONPC solution.

- PREM-1965: Fixed the problem that the "Follow me" function could not be set up via the telephone remote dial-in procedure when calling from the mobile network.
- PREM-2014: Fixed memory leak caused by rejected incoming calls.
- PREM-2029: Resolved the problem that STUN binding requests were always sent for VoIP connections.

Note: STUN binding requests are sent now only if NAT is detected on the connection path. For NAT detection the SIP "rport" functionality is used.

- PREM-2045: Waiting calls are now rejected on a Telekom "DLAN IP VOICE" connection if no "External Hold" is configured for this connection.

Note: This avoids so-called "ghost ringing" calls.

- PREM-2047: Fixed the issue that dialtone instead of busytone was played back for outgoing calls from IP phone.

Note: Occured only when the maximum number of simultaneous connections from "DLAN IP Voice" access was reached.

- PREM-2069: Gigaset Phone Reprovisioning doesn't work reliably after reboot of the system.

Note: The problem increases when an external DHCP server is used instead of the internal one.

GUI:

- BS-4558: Fixed an issue where it was possible to add a 64 digit WiFi password although the maximum length is limited to 63 digits.
- BS-5625, BS-5661: Usability fix: Updated text layout of text paragraphs and notes for better readability.
- BS-6447: Fixed a display issue where IP and MAC address input fields were displayed incorrectly on small screens (e.g. mobile phone).
- BS-6825: Fixed the layout of inputs field which were too short to display the whole string inside on the page. (e.g. WiFi password field)
- BS-7152: Usability fix: Updated the note on the Loadbalancing edit page to inform the user about the selectable protocol types.
- BS-7209: Usability fix: Added a note on the Guest WiFi page when WiFi is completely disabled.

- BS-7210: Usability fix: Updated the error message on the configuration page for SSH user accounts.
- BS-7234: Usability fix: Added a note for "Reduce transmitting power automatically" on the WiFi page.
- BS-7239: Removed WAnoE profile information from Internet overview page.
- BS-7306: Removed no longer supported NAT mapping table.
- BS-7311, BS-7324: Updated xDSL spectrum and status page.
- PREM-1982: Resolved the problem that some popup pages did not work with latest Chrome version.
- PREM-2013: Fixed issue that login was not possible if the System Name contained special characters.

Configuration:

- BS-7280, CSO-1309, (DM-2868): Changed TCP connection timeout parameters to the values recommended by Deutsche Telekom.

xDSL:

- BS-7326: Integrated new MaxLinear xDSL/G.fast CPE DSL Subsystem release 12.9.1.1.0.05

Firewall:

- PREM-2000: Fixed issue that activating the exposed host function breaks IPSec VPN data exchange.
- BS-7284: Fixed an issue where it was possible to overwrite an existing port forwarding rule by adding a similar ACCEPT rule into the firewall.

Networking:

- BS-6606: Fixed an issue where policy based routing entries for the secondary WAN interface were missing.

- BS-7231: Fixed an issue where the DHCPv6 client did not attempt to obtain an IPv6 lease under certain circumstances.
- BS-7243: Fixed an issue where in rare cases IPv6 prefixes were no longer provided via router advertisements on the LAN.
- BS-7275: Fixed an issue where the PPP session sporadically failed to start.

Note: Issue was caused by an incorrect error handling in the startup procedure, which resulted in a longer timeout before restarting the process.

- BS-7057, PREM-1665: Fixed an issue where the System lost the network function for several minutes after receiving a packet with own MAC address as source address.

Note: This is a non-typical behavior, but can happen in some switch environments.

GPON:

- BS-7203: Fixed an issue where the SFP module was deactivated after a few days runtime.

Note: Issue was caused after 5 transmission fault events were received. It can only be reset by re-plugging the SFP module.

- BS-7315, PREM-2028: The whitelist for supported SFP modules has been removed so that all SFP modules are now allowed by default.

VPN:

- PREM-1907: Added an additional configuration check to prevent the setting of the local network as IPSec remote network traffic selector.
- PREM-1945: Fixed IPSec VPN problem with the usage of backslash character in preshared keys.
- PREM-1951: Resolved configuration issue causing IPSec connections using start-up mode "always up" are not be re-established after briefly termination of the Internet connection.

Known limitations:

- VPN hardware acceleration is not activated yet
- CSO-1296, BS-7197: (DM-2817) Setting of priority bit for Voice Control is currently "0", but must be "5" (according to Tech Call from 4. August 2022).
- BS-6370: Link state of WANoE is not updated in GUI.
- BS-7069, PREM-1658: GUI: When switching to the Advanced Access page to configure xDSL information without saving this changes results in a broken VLAN configuration for this access setup.
- BS-7223: The bandwidth for the 5 GHz WiFi access point is limited to 20 MHz when a mode different than 802.11 anacax (default) is configured.

2.4 19.40.05.00.s3b1072 (12 September 2022)

Security related changes:

- BS-6514: Updated tool tcpdump and associated library libpcap to the latest version (tcpdump 4.99.1, libpcap 1.10.1).
- BS-7160: Updated module OpenSSL to version 1.1.1q
 - | Note: Version updated according to the OpenSSL Security Advisory from 5th Jul 2022
- BS-7010: Updated signing mechanism for the webimage signing process.
 - | Note: See also BSI TR-03148-P test specification
- BS-7122: Updated module dbus to version 1.4.26
- BS-7123: Updated module libnl to version 3.6.0

New features:

- Revision of the IPSec sub system. See section VPN for more detail.
- We have added a menu for the central management of certificates at "Home > Show more > Certificates".
- PREM-1446, PREM-1807: Additional Voicemail languages now can directly be loaded and installed from our system-update.eu server.
- PREM-1590, PREM-1689: The device's FXS ports can be used when operated as a media gateway, too.
- PREM-1615: When activating Call Forwarding on No Reply per Telephone Keypad Procedure, a Timer (1...99s) can now be configured.
- PREM-1645: Announcements (wave files) can now also be recorded directly via a telephone.
 - | Note: Dial *55 from a phone or initiate a phone call from the GUI and record the text.
- PREM-1754: A voicemail box can now be activated directly for a subscriber without having to set up call forwarding.

- PREM-1759: These elmeg ISDN systemtelephones are now supported again: S560, S530, CS410, CS400xt and CS290.
- PREM-1763: New function keys have been added for elmeg system telephones to be able to activate or deactivate voice mail boxes directly without having to go through call forwarding.
- PREM-1829: In all Call Forwarding on No Reply GUI menus, an individual Timer (1...99s) can now be configured.
- PREM-1832: Increased the number of announcements with DISA from 10 to 30.
- PREM-1847: Ignoring the globally configured DNS server is now possible for VoIP accounts.

System:

- PREM-1551: Error messages or debug information from the PBX subsystem are now stored in the expert syslog.
- PREM-1766: The PBX boot configuration file could be corrupted after a system snapshot was taken.

Telephony:

- PREM-1450, PREM-1719: Error and warning messages were removed which occurred after Music on Hold or announcements had been released.
- PREM-1549: In order to save DSP channel resources, Music on Hold or announcements are now played back via a soft coder for G.722 VoIP connections.
- PREM-1696: Picked up calls were incorrectly saved under the OUTGOING section in the caller list.
- PREM-1702: The correct rule for incoming calls in calling party number translation is now selected in Swxy connections.
- PREM-1707: Now the internal DNS cache is not reset globally, DNS cache is only flushed for the affected WAN interface.
- PREM-1711: Under certain circumstances, a DECT150 device was not recognized correctly.

- PREM-1717: Fax in T.38 mode did not work reliably.
- PREM-1718: Music on Hold was not switched immediately in multiple held calls.
- PREM-1720: A Keep-alive mechanism via SIP OPTIONS (every 60 seconds) has been added.
 - Note: This is a ITR119 recommendation and improves compatibility with Telekom SIP trunk connections.
- PREM-1724: A missing SDP version increment caused connections to fail in certain cases.
- PREM-1729: The connected address was signaled incorrectly in ERROR-ANNOUNCEMENT call.
- PREM-1733: The local ring-back tone was missing after receiving a session progress with "P-Early-Media: inactive".
- PREM-1735: The maximum number of simultaneous connections to the internal voice mail system has been increased from 2 to 8.
- PREM-1764: CCBS ("Completion of Calls to Busy Subscriber") failed in case of VoIP accounts using SIP-TLS with SRTP.
- PREM-1780: The 'message waiting indication' on ISDN interfaces was missing.
- PREM-1782: When VoIP DSP resources were exceeded, memory leaks could occur.
- PREM-1791: A callback from the voice mail system (by pressing the 6 key) to the external caller was not possible.
- PREM-1799: An internal SIP phone could not activate a callback on busy (CCBS) via voice command.
- PREM-1802: Call forwarding was not performed immediately if no SIP phone was registered within a hidden team.
- PREM-1812: A new telephone keypad procedure has been added to activate or deactivate user voice mail boxes directly without having to go through call forwarding.
- PREM-1830: CCBS failed if a PRACK with 'a=inactive' was received.
- PREM-1834: In case of SIP forking, no ringtone was played.

- PREM-1842: The SIP header "P-Early-Media header" can be disabled via the MIB.
- PREM-1857: The DSP channel indication was not always accurate.
- PREM-1911: Fixed possibly an issue where a kernel panic occurred during a SRTP connection when after a media change unencrypted data was received.

GUI:

- BS-5890: Updated the validation error message for text input field related to unsupported umlauts.
- BS-6382: Customized the layout of the PPP up/downstream data rate for the dial-in server in human readable form.
- BS-6895, PREM-1814, PREM-1815: Fixed an issue with the configuration of both access point when WiFi Band Steering option is enabled.

Note: If the Band Steering option is enabled the configuration pages for 2.4 GHz and 5 GHz access points are combined into one page.

- BS-6959, BS-6960, PREM-1621, PREM-1622: Added the option to edit inbound/outbound traffic policies to support the Business Premium Access connection.
- BS-6997: Fixed an issue where the GUI does not display a stylized layout when a system snapshot is downloaded without specifying a password.
- BS-7107, BS-7185, BS-7186: Updated license page with the correct license information for several modules.
- PREM-1635, PREM-1642: The GUI pages for the configuration of Call Distribution page have been improved.
- PREM-1643: Day/night mode can be switched via the GUI now.
- PREM-1704: Images on some help pages in the GUI were not displayed.
- PREM-1705: SwyxWare: A company Flex connection can be used to back up a Swyx connection.

- PREM-1706, PREM-1910: The Download and Upload speed of the internet connections is now displayed on the initial setup success page.
- PREM-1727: MAC vendor names can now be displayed instead of the full MAC address.
- PREM-1738: Which VMS languages are installed in the system is now displayed via a MIB table.
- PREM-1746: A number of default values for Swyx connections has been modified to improve performance and stability.
- PREM-1796: There was no error message for a missing ULA on the LAN assistant GUI page.
- PREM-1815: The WLAN menu now offers the option 'all frequency bands' when Band Steering is enabled.
- PREM-1909: Fixed the problem when configuring a CompanyFlex VoIP connection via the Initial Setup Wizard, that unnecessary VoIP connection entries were created.

Configuration:

- BS-7105, PREM-1749: Added support of backup interface to all generic xDSL areas.
- BS-7112: Removed obsolete firewall zone configuration previously used for DTAG IPTV area.
- BS-7115: Added generic G.fast area configuration.
- BS-7116: Added VLAN to generic ADSL area configuration.
- BS-7136, PREM-1789: Fixed relation of firewall zone and firewall interface for WANoE Telekom Business Premium Access area.
- BS-7177: Added support for DHCP option 138 (CAPWAP)
- BS-7180, PREM-1861: Added certification storage directory to the config import/export function.
- PREM-1798: X.509 certificates are now included in configuration imports and exports.
- PREM-1932: Fixed possibly an issue where the MIB configuration daemon does not run under certain circumstances.

xDSL:

- BS-7151: Integrated new MaxLinear xDSL/G.fast CPE DSL Subsystem release 12.8.2.1.0.02
- BS-7121: Fixed an issue where it was not possible to sync to a 2MBit/s ADSL line.
 - | Note: Issue was a regression caused by the xDSL
 | firmware integrated in firmware 19.40.4.00.
- BS-7191: Fixed an issue where establishing the PPP connection on an ADSL generic area caused an error on the device.

IPTV:

- BS-7044: Fixed an issue where IPTV streams were interrupted during IPv6 renewal on the WAN connection.
- BS-7165: Fixed an issue where multicast streams were not added to hardware acceleration under certain circumstances, resulting in increased system load.

Networking:

- BS-6924: Fixed an issue where after reconfiguring the internet connection from "PPPoE over internal modem" to "PPPoE over WANoE", only a reboot of the device can establish the connection.
- BS-7067, PREM-1661: Fixed an issue where configuring a static IP with VLAN on WANoE required a reboot of the device to be enabled.
- BS-7090: Fixed an issue where load-balancing functionality does not recognize changes if only "stickiness" is switched on or off.
- BS-7143: Fixed an issue where the DHCPv6 client on WAN generates a new DUID after each reboot.
- BS-7119: Fixed an issue where Internet traffic was not possible after successfully establishing a PPP connection due to a missing default routing entry.

- BS-7166: Fixed an issue where the WAN-DHCPv6 client stopped working when the server responded with an "unspecified" error message.

 | Note: All messages without requested data and missing status codes were ignored.

QoS:

- BS-6242, PREM-1007: Fixed the L2/L3 pBit mapping according to 1TR114.
- BS-7053: Fixed an issue with the missing DSCP to pBit mapping according to 1TR114 for LAN traffic.
- BS-7054: Fixed an issue with the missing pBit marking according to 1TR114 for internal traffic.
- BS-7075: Fixed an issue with QoS interferences when load balancing rules are set.
- BS-7111: Added and enabled new QoS daemon.
- BS-7154: Fixed the TCP Acknowledge prioritization in hardware.

WiFi:

- BS-7046: Updated prplMesh to version 2.3.0
- BS-6937: Fixed an issue where the Guest WiFi client isolation doesn't work within 5 GHz nor between the two radio cells (2.4 and 5 GHz).
- CSO-1279, BS-7100: Fixed an issue where it was not possible to re-activate WiFi using the WiFi on/off hardware button while WiFi timer mode is active.
- BS-7087: Fixed an issue where NTP service was not reachable in the Guest WiFi.
- BS-7117: Fixed an issue where WiFi authentication mode switched to unencrypted after client isolation was disabled.

GPON:

- BS-6360: Prepared platform to provide WAnoE interface link state for RJ45 WAnoE and SFP module.

Note: Correct link state still not shown in GUI (see also [known limitation](#))

- BS-7092: Fixed an issue where the syslog was flooded with warning messages when the device was operated without SFP module.

VPN:

- IKE and ESP profiles can be configured in detail.

Note: All aspects (encryption and integrity algorithms as well as pseudo random function and DFH) can be selected and grouped individually.

- Full IPv4/IPv6 dual stack support has been added.

Note: Note that IPv6 needs to be configured in the advanced menus at "Internet Network > Show more > VPN".

- X.509 certificates are supported for IKEv1 and IKEv2 authentication.

- IKEv2 authentication with EAP-MSCHAPv2 has been added.

Note: This authentication type is supported by the most commonly used operating systems (Microsoft, Apple, Android).

- IKEv2 authentication with EAP-MD5 and Postquantum Preshared Key (PPK) has been added to provide an interoperable EAP authentication mode for the bintec secure client.

- IPSec connections can be activated in different ways: 'always active', 'on demand', and 'user-triggered'.

Note: Note that not all methods apply to all connection types.

- IKEv1 (main as well as aggressive mode) has been added as a configuration option to provide support for legacy installations.

Note: Note that IKEv1 aggressive mode needs to be enabled in the menu "IPSec Global Settings > Show more".

- BS-7148, PREM-1804: Switched to dedicated iptables PREROUTING chain in strongswan.
- PREM-1826: The bintec secure client export function did not consider all configured IPSec Filter entries.

Known limitations:

- VPN hardware acceleration is not activated yet
- CSO-1296, BS-7197: (DM-2817) Setting of priority bit for Voice Control is currently "0", but must be "5".
- BS-6370: Link state of WANOE is not updated in GUI.
- BS-7223: The bandwidth for the 5 GHz WiFi access point is limited to 20 MHz when a mode different than 802.11 anacax (default) is configured.
- BS-7224, PREM-1931: In the GUI it is possible to deactivate a WiFi access point (2.4 or 5 GHz) even the option band steering mode is enabled.

2.5 19.40.04.00.s3b911 (4 April 2022)

Security related changes:

- BS-6973, PREM-1664, PREM-1687: Fixed an issue where the port 18443 was still open after disabling telephony provisioning server.
- BS-6996: The password for the config export file is now using the same password rules as the GUI login password.
- BS-7024: Fixed an issue where a SSH connection to the device was rejected caused by the deprecated rsa-sha1 negotiation.

| Note: Updated dropbear version to 2020.81

New features:

- BS-2188: Added support of sticky load balancing.
- BS-6888, PREM-1488: Implementation of controllable delay for the restart during firmware update via GUI.
- PREM-1155: The WLAN settings menu now offers the option to disable the hardware WLAN button on the device.
- PREM-1484: New programmable function keys for Gigaset devices have been added: "Call Variant, Team", "Reroute Variant, Extension/Trunk Number", "Voice Box Mode, Extension/Team".
- PREM-1587: Configured locations are now available for selection in the trunk assistants.
- PREM-1605: TCP keepalive to detect dead VoIP TCP connections is supported now.

| Note: The TCP keepalive functionality is enabled per default for all VoIP accounts using transport protocol TCP or TLS.

- PREM-1610: The Swyx IP Assistant has been added. Note that reregistering at the Swyx server may take several minutes after a reboot of the device.
- PREM-1641: SSH access can be enabled via GUI.
- PREM-1646: It is now possible to limit the number of incoming calls in the event of a high call load so that external (outgoing) calls can still be routed.

System:

- BS-6886: Fixed incorrect behaviour of the WANoE LED for a 10/100 MBit link.
- BS-7039: Fixed an issue where the PPPoE user credentials were shown in clear text in the syslog.

Telephony:

- PREM-1648: Missing or disturbed announcements could occur after a team call with rerouting/DISA when SRTP is configured.
- PREM-1644: Fixed a wrong destination address for RTP in special call forwarding scenarios.
- PREM-1638: Fixed an incorrect IP address in SDP when VPN is used. So VoIP connections via VPN are possible again.
- PREM-1626: The transmission of the own IP address for SIP connections was not coherent across all transport protocols if no STUN server was specified.
- PREM-1614: In the call data records, the "duration of the connection" is now correct when a blind transfer to a busy extension is done.
- PREM-1613: Outgoing RTP sessions failed in some special call forwarding scenarios.
- PREM-1611: Various issues in conjunction with the feature "Transfer to busy extension" have been fixed.
- PREM-1609: Provisioning of voicemail settings is now also possible for MSN 2, 3 and 4.
- PREM-1596: The public holiday "Heilige Drei Könige (06.01.)" has been removed from the default configuration because it is not valid in all German federal states.
- PREM-1595: Fixed an issue where there was always missing audio between FXS and VoIP after a call transfer to a busy FXS phone had been done before.

- PREM-1591: The fallback from TLS to TCP for the same Registrar IP address is now functional in VoIP connections.
- PREM-1584: It is now possible to enter digits to control features for "parallel ringing", "call through" or "phone remote access calls" if "DTMF inband detection" is set in the codec profile.
- PREM-1566: Fixed an issue where the control of the Voice Mail System via DTMF (RFC 4733) was not possible if the codec G.729 was used.
- PREM-1550: Country specific external dial tone simulation for Call Through and Parallel Ringing calls has been added.

Web GUI:

- BS-6966: Fixed an issue where it was not possible to configure rules for TCP only on load balancing page.
- BS-6964, PREM-1592: Fixed an issue where it was not possible to enable/disable IPv6 for the local network.
- BS-7023: Fixed an issue where it was not possible to access the internet via Guest WiFi.
- PREM-1660: The automatic assignment of ISDN ports to point to point connections was not working.
- PREM-1654: The German text was changed from "Rufnummer" to "Anrufende Leitung" in MGW mode.
- PREM-1586: Display user mobile and home numbers in the system phonebook on IP6X0 and DECT210/160.
- PREM-1585: The option to select "Any location" as interface for VoIP connections in Swyx configurations has been added.
- PREM-1542: A GUI page for monitoring WLAN connections has been added to the Show More menus.
- PREM-928: WLAN menu landing page now contains meaningful information about connected clients and current used channels.

xDSL:

- BS-7047, BS-7055: Integrated new MaxLinear xDSL/G.fast CPE DSLSubsystem release 12.8.1.1.0.07
- BS-7049: Enabled toneset F43c
- BS-7015, PREM-1627: Fixed an issue where the device has been crashed when unplugging an active ADSL2+ connection.

Firewall:

- BS-7026: Fixed an issue with leaked traffic from LAN to Guest WiFi zone caused by port forwarding rules.

QoS:

- BS-7086: Fixed an issue where an active upstream on the ADSL2+ line caused unstable calls.

VPN:

- BS-7056: Fixed an issue where UDP upstream traffic from LAN to VPN was not possible.

Known limitations:

- DSCP-QoS and p-Bit Marking is currently not supported on the LAN interface.
- VPN hardware acceleration is not activated yet.
- BS-6937: Guest WiFi client isolation doesn't work within 5GHz nor between the two radio cells (2.4 and 5GHz).
- BS-7090: Sticky load balancing is only functional if it's enabled together with load balancing.
- PREM-1527: IPSec connections configured for start mode *always up* are briefly interrupted when the status up/down button in the list of configured IPsec connections is pressed for any entry.

- PREM-1536: The displayed download and upload speeds are not always accurate for WANoE connections and for connections realized via PPPoE over a connected external modem.
- PREM-1704: There are broken image links on some help pages in the GUI.

3 Firmware update

This is how to perform a firmware update using the web interface of your device:

1. Open your Internet browser and enter the IP address "192.168.0.251"
2. In case you have activated the access protection, please log in to the web interface using your own user credentials. In factory default mode, you first have to run through the setup assistant or cancel it before you can perform any firmware update
3. Click on "Show more" on the main page to open the "Maintenance" option menu.
4. Click on "Firmware and Configuration" to go to the firmware update page.
5. Enter in the field "Firmware file" the path to the update file by clicking on the file chooser.
6. Click button "Update" to start the firmware update

The firmware update has completed when the Status LED ("Power") switched from red to green light. You will now see the login screen or the web interface in your browser.

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The GPL-licensed source code of this product can, by stating the product name (see print label on the backside of the product), be requested

- by email at info@bintec-elmeg.com

or:

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